Probability Tables for Multiple Task Rolls
AKA, The Crunch Tables

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The purpose of these tables, in all simplicity, is to make rolling dice a little faster, but feel free to come up with new uses for them, as well. Some of these tables have been playtested, and found very useful. Others were made as they were based on an idea. The principles behind all of these numbers are formulas for probability calculations, so they are not just pulled out of a hat.

Below, are the descriptions and intended means of use for all the tables, along with as some ideas. Some words of notice: These tables use the 00 - 99 system of **Leading Edge Games´** products with the D100 dice, which means that 00 is 0, as in the lowest possible number to roll, and 99 is the highest. Also, notice that the reason some of these tables don´t go beyond 98 in the 00 - 99 system, is that it would be pointless, as a 99 is an automatic success with the dice.

Tables 1A, 1B, and 1C: These tables are used for getting the **Odds of Success** with just one roll of the dice when having to roll several times with the same *original* Odds.

For an example, if the Odds for a character´s skill to succeed were 34, and the character made a total of 3 attempts with the same Odds, the table would show you what the Odds for getting *at least one* success would be (which, in this example, would be 71).

A good way to use these tables, is to see how long it would take for a character to succeed in a certain task that he keeps on trying. Just take his *original* **Odds of Success**, and roll the dice. Take the correct row from the table for the character´s *original* Odds, and move on the **Successes Required** column to the right until you hit a number which is equal to or greater than the roll of the dice. Then look up on the number of **Successes Required**, to see how many attempts it would take for the character to succeed in his attempt. All nice and fast, and you don´t have to make tons of rolls of dice just to see when a task is finally successful.

Table 1A is a two page version of the "at least one success" -tables, and it uses the 00 - 99 dice.

Table 1B is a compact one-page version of **Table 1A**, and it is otherwise identical to the first one. This is, perhaps, more suitable for a GM/Referee who doesn´t want to overload his Commanding Bridge with too many tables.

Table 1C is, in effect, similar to **Table 1A**, but it uses the 3(6) (or 3D6) system instead of the 00 - 99 one.

Tables 2A, 2B, and 2C: These tables are used when you want to split one **Odds of Success** roll into several. An example of this can be seen in the Expanded Wound Recovery Roll rules in Section 8.7 of the **Phoenix Command Expansion**.

Like the tables described above, these ones should be rather self-explanatory after a good glance at them. Just cross-index the *original* **Odds of Success** with the **Number of Successes Required** to get the same chances of success/failure as were with the *original* Odds. The result of the cross-indexing gives a value, which then must be rolled less than or equal to, for as many times as indicated by the appropriate **Number of Successes Required** column.

For an example, the original Odds for a player´s character to succeed in a certain task are 23, and the GM rules that the roll must be made four times to actually succeed in the given task. Cross-indexing the Odds of 23 and the Successes Required of 4 on Table 1A gives a result of 68. Thus, the player must roll 68 or less with four separate rolls of the dice in order to be successful in the given task.

You may find whatever purposes you can come up with for these tables, but one idea for a GM would be to use them in situations in which he wants to make the task a little more exiting and/or descriptive. You may also create situations in which players need to make several rolls of dice, but they may be allowed one or two failures to still be successful in the end. This could add a certain element of excitement, especially if combined with some good descriptive role-playing.

Table 2A is, just like **Table 1A**, a two page large version of the "one roll split into many" -tables. It also uses the 00 - 99 dice.

Table 2B is, like **Table 1B**, a compact version of the bigger **Table 2A**.

Table 2C is simply a 3(6) (or 3D6) version of **Table 2B**.

Table 2D is a variation of the 3(6)-table, above.

Tables 3A and 3B: These tables were designed with particularly the **Phoenix Command Combat System** in mind. They haven´t actually been playtested in any way, but the idea behind them was to make combat faster paced with bullets flying all around, kind of like in a John Woo -movie. The basic function of the tables is to let you resolve the amount of bullets hit/missed with *a non-automatic weapon* by just rolling the dice *once*.

First, with this system, shots are grouped together in sets of shots. These tables let you use a maximum of six bullets in one group (or set), although it would, of course, be possible to expand the tables with some extra work.

Secondly, the tables use the **Effective Accuracy Level (EAL)** from **Phoenix Command** and the Odds of Success are calculated by using the Odds for Single Shots, *not* Burst Elevation.

So, when you know the basics, the tables should be pretty easy to comprehend. First you need to know the amount of shots in the group of bullets that is fired. The table (3A) has these groups of bullets grouped in the left hand side of the table and there are a total of six groups with each group having 1 to 6 numbers under each other. The first "group" is essentially the basic Odds for a Single Shot bullet hitting its target with the corresponding EAL. The second group is for a group of two bullets, and to the right you can see the Odds of Hitting for both, one bullet and two bullets. The third group is for three bullets and it has the Odds for 1, 2, or all three bullets hitting its target. And so on.

An example to clarify these rules a little bit: A character fires a weapon at a target with an EAL of 13. He fires his gun for a total of 4 times; thus the bullet group has 4 bullets in it. From the Shots Hit column, we take the group that has numbers from 1 to 4 under each other. Then we move to the right on the table until we reach the column for an EAL 13 shot. Looking at the Odds, we can now read that for one of the four bullets to hit, the player would have to roll 64 or less on a 00 - 99 roll. For at least two bullets to hit he´d have to roll 22 or less; for 3 bullets to hit, 03 or less; and for all of the four bullets to hit, it would be effectively impossible with these Odds. The character rolls a 37 and as the result is between 64 and 22, he hits the target with one bullet.

Now, as indicated before, these rules have not been tested, and there are certainly holes in them as in standard **Phoenix Command** rules, the **Odds of Hitting** are subject to continuous change from the altering of the **EAL**. However, if someone does find some use to them, I´d imagine these tables could really speed up the gameplay, even if they ate up some detail from it.

Table 3A is the standard "multiple shots hit" -table, which was used in the descriptions above.

Table 3B is the very same table as **Table 3A**, in contents, but it is viewed differently in that it has the EAL on the left and the shot groups on the top of the table.

Table 4: This table is made for the 3(6) (or 3D6) dice system, instead of the 00 - 99 one, and it is, in function, very similar to **Tables 3A** and **3B**. Basically the only difference is, that it doesn´t use **Effective Accuracy Level (EAL)**, but instead the Odds to perform a task.

So, just cross-index the number of **Attempts** in a group with the **Odds of Success**, and roll the dice to see how many successes are scored. For further explanation of this table, refer to the description of **Tables 3A** and **3B**, above.

Due to the fact that this table doesn´t use the EALs but instead, the Odds of Success, this table is more suited for various skill rolls, for which you wish to know the amount of successes taken from a group of attempts. Again, feel free to come up with whatever uses you will for it.

Odds of getting _at least_ one success: Cross-index the 00 - 99 chance of a
single attempt with the total amount of attempts on the table below, to get the Odds.

T A B L E   1 A

00-99 per Attempt	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
96	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
95	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
94	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
93	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
92	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
91	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
90	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
89	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
88	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
87	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
86	96	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
85	96	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
84	96	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
83	95	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
82	95	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
81	95	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
80	94	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
79	94	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
78	94	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
77	93	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
76	93	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
75	92	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
74	92	96	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
73	91	96	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
72	91	96	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
71	90	96	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
70	90	96	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
69	89	95	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
68	88	95	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
67	88	95	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
66	87	94	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
65	86	94	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
64	86	94	96	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
63	85	93	96	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
62	84	93	96	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
61	84	93	96	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
60	83	92	96	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
59	82	92	95	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
58	81	91	95	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
57	80	91	95	97	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98
56	80	90	95	97	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98
55	79	89	94	96	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98
54	78	89	94	96	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98
53	77	88	94	96	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98
52	76	88	93	96	97	97	98	98	98	98	98	98	98	98	98	98	98	98	98
51	75	87	93	95	97	97	98	98	98	98	98	98	98	98	98	98	98	98	98
50	74	86	92	95	97	97	98	98	98	98	98	98	98	98	98	98	98	98	98
49	73	86	92	95	96	97	98	98	98	98	98	98	98	98	98	98	98	98	98

T A B L E   1 A

00-99 per	Amount of Attempts																		
Attempt	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
48	72	85	91	95	96	97	98	98	98	98	98	98	98	98	98	98	98	98	98
47	71	84	91	94	96	97	97	98	98	98	98	98	98	98	98	98	98	98	98
46	70	83	90	94	96	97	97	98	98	98	98	98	98	98	98	98	98	98	98
45	69	82	89	93	96	97	97	98	98	98	98	98	98	98	98	98	98	98	98
44	68	81	89	93	95	96	97	98	98	98	98	98	98	98	98	98	98	98	98
43	67	80	88	92	95	96	97	97	98	98	98	98	98	98	98	98	98	98	98
42	66	79	87	92	95	96	97	97	98	98	98	98	98	98	98	98	98	98	98
41	64	78	87	91	94	96	97	97	98	98	98	98	98	98	98	98	98	98	98
40	63	77	86	91	94	96	97	97	97	98	98	98	98	98	98	98	98	98	98
39	62	76	85	90	93	95	96	97	97	98	98	98	98	98	98	98	98	98	98
38	61	75	84	90	93	95	96	97	97	98	98	98	98	98	98	98	98	98	98
37	60	74	83	89	92	94	96	97	97	97	98	98	98	98	98	98	98	98	98
36	58	73	82	88	92	94	96	96	97	97	98	98	98	98	98	98	98	98	98
35	57	72	81	87	91	94	95	96	97	97	98	98	98	98	98	98	98	98	98
34	56	71	80	86	90	93	95	96	97	97	97	98	98	98	98	98	98	98	98
33	54	69	79	85	90	93	94	96	96	97	97	98	98	98	98	98	98	98	98
32	53	68	78	84	89	92	94	95	96	97	97	97	98	98	98	98	98	98	98
31	52	67	77	83	88	91	93	95	96	97	97	97	98	98	98	98	98	98	98
30	50	65	75	82	87	91	93	94	96	96	97	97	97	98	98	98	98	98	98
29	49	64	74	81	86	90	92	94	95	96	97	97	97	98	98	98	98	98	98
28	48	62	73	80	85	89	92	93	95	96	96	97	97	97	98	98	98	98	98
27	46	61	71	79	84	88	91	93	94	95	96	97	97	97	97	98	98	98	98
26	45	59	70	77	83	87	90	92	94	95	96	96	97	97	97	98	98	98	98
25	43	57	68	76	82	86	89	91	93	94	95	96	97	97	97	97	98	98	98
24	42	56	66	74	80	85	88	90	92	94	95	96	96	97	97	97	97	98	98
23	40	54	65	73	79	83	87	90	92	93	94	95	96	96	97	97	97	97	98
22	39	52	63	71	77	82	86	88	91	92	94	95	95	96	96	97	97	97	97
21	37	51	61	69	75	80	84	87	90	91	93	94	95	96	96	97	97	97	97
20	36	49	59	67	74	79	83	86	89	91	92	93	94	95	96	96	97	97	97
19	34	47	57	65	72	77	81	85	87	89	91	93	94	94	95	96	96	97	97
18	32	45	55	63	70	75	79	83	86	88	90	92	93	94	95	95	96	96	97
17	31	43	53	61	68	73	78	81	84	87	89	90	92	93	94	95	95	96	96
16	29	41	51	59	65	71	75	79	82	85	87	89	91	92	93	94	95	95	96
15	27	39	48	56	63	68	73	77	81	83	86	88	89	91	92	93	94	94	95
14	26	37	46	54	60	66	71	75	78	81	84	86	88	89	91	92	93	93	94
13	24	34	43	51	58	63	68	72	76	79	82	84	86	88	89	90	91	92	93
12	22	32	41	48	55	60	65	69	73	76	79	82	84	86	87	89	90	91	92
11	21	30	38	45	52	57	62	66	70	73	76	79	81	83	85	87	88	89	90
10	19	28	35	42	48	54	59	63	67	70	73	76	78	81	83	84	86	87	88
09	17	25	32	39	45	50	55	59	63	67	70	73	75	77	79	81	83	84	86
08	15	23	29	36	41	46	51	55	59	63	66	69	71	74	76	78	80	81	83
07	13	20	26	32	37	42	47	51	55	58	61	64	67	69	72	74	76	77	79
06	12	18	23	28	33	38	42	46	50	53	56	59	62	64	67	69	71	73	75
05	10	15	20	25	29	33	37	41	44	47	50	53	56	58	61	63	65	67	69
04	08	12	17	21	24	28	32	35	38	41	44	47	49	52	54	56	58	60	62
03	06	10	13	16	20	23	26	29	32	34	37	39	42	44	46	48	50	52	54
02	04	07	10	12	15	17	20	22	24	26	29	31	33	35	37	38	40	42	44
01	02	04	06	08	09	11	13	15	16	18	20	21	23	24	26	27	28	30	31
00	00	01	02	03	04	05	06	07	08	09	09	10	11	12	13	14	15	15	16

T A B L E   1 B

00-99 per Attempt	Amount of Attempts									00-99 per Attempt	Amount of Attempts								
	2	3	4	5	6	7	8	9	10		2	3	4	5	6	7	8	9	10
98	98	98	98	98	98	98	98	98	98	48	72	85	91	95	96	97	98	98	98
97	98	98	98	98	98	98	98	98	98	47	71	84	91	94	96	97	97	98	98
96	98	98	98	98	98	98	98	98	98	46	70	83	90	94	96	97	97	98	98
95	98	98	98	98	98	98	98	98	98	45	69	82	89	93	96	97	97	98	98
94	98	98	98	98	98	98	98	98	98	44	68	81	89	93	95	96	97	98	98
93	98	98	98	98	98	98	98	98	98	43	67	80	88	92	95	96	97	97	98
92	98	98	98	98	98	98	98	98	98	42	66	79	87	92	95	96	97	97	98
91	97	98	98	98	98	98	98	98	98	41	64	78	87	91	94	96	97	97	98
90	97	98	98	98	98	98	98	98	98	40	63	77	86	91	94	96	97	97	97
89	97	98	98	98	98	98	98	98	98	39	62	76	85	90	93	95	96	97	97
88	97	98	98	98	98	98	98	98	98	38	61	75	84	90	93	95	96	97	97
87	97	98	98	98	98	98	98	98	98	37	60	74	83	89	92	94	96	97	97
86	96	98	98	98	98	98	98	98	98	36	58	73	82	88	92	94	96	96	97
85	96	98	98	98	98	98	98	98	98	35	57	72	81	87	91	94	95	96	97
84	96	98	98	98	98	98	98	98	98	34	56	71	80	86	90	93	95	96	97
83	95	98	98	98	98	98	98	98	98	33	54	69	79	85	90	93	94	96	96
82	95	98	98	98	98	98	98	98	98	32	53	68	78	84	89	92	94	95	96
81	95	97	98	98	98	98	98	98	98	31	52	67	77	83	88	91	93	95	96
80	94	97	98	98	98	98	98	98	98	30	50	65	75	82	87	91	93	94	96
79	94	97	98	98	98	98	98	98	98	29	49	64	74	81	86	90	92	94	95
78	94	97	98	98	98	98	98	98	98	28	48	62	73	80	85	89	92	93	95
77	93	97	98	98	98	98	98	98	98	27	46	61	71	79	84	88	91	93	94
76	93	97	98	98	98	98	98	98	98	26	45	59	70	77	83	87	90	92	94
75	92	97	98	98	98	98	98	98	98	25	43	57	68	76	82	86	89	91	93
74	92	96	98	98	98	98	98	98	98	24	42	56	66	74	80	85	88	90	92
73	91	96	98	98	98	98	98	98	98	23	40	54	65	73	79	83	87	90	92
72	91	96	97	98	98	98	98	98	98	22	39	52	63	71	77	82	86	88	91
71	90	96	97	98	98	98	98	98	98	21	37	51	61	69	75	80	84	87	90
70	90	96	97	98	98	98	98	98	98	20	36	49	59	67	74	79	83	86	89
69	89	95	97	98	98	98	98	98	98	19	34	47	57	65	72	77	81	85	87
68	88	95	97	98	98	98	98	98	98	18	32	45	55	63	70	75	79	83	86
67	88	95	97	98	98	98	98	98	98	17	31	43	53	61	68	73	78	81	84
66	87	94	97	98	98	98	98	98	98	16	29	41	51	59	65	71	75	79	82
65	86	94	97	98	98	98	98	98	98	15	27	39	48	56	63	68	73	77	81
64	86	94	96	97	98	98	98	98	98	14	26	37	46	54	60	66	71	75	78
63	85	93	96	97	98	98	98	98	98	13	24	34	43	51	58	63	68	72	76
62	84	93	96	97	98	98	98	98	98	12	22	32	41	48	55	60	65	69	73
61	84	93	96	97	98	98	98	98	98	11	21	30	38	45	52	57	62	66	70
60	83	92	96	97	98	98	98	98	98	10	19	28	35	42	48	54	59	63	67
59	82	92	95	97	98	98	98	98	98	09	17	25	32	39	45	50	55	59	63
58	81	91	95	97	98	98	98	98	98	08	15	23	29	36	41	46	51	55	59
57	80	91	95	97	97	98	98	98	98	07	13	20	26	32	37	42	47	51	55
56	80	90	95	97	97	98	98	98	98	06	12	18	23	28	33	38	42	46	50
55	79	89	94	96	97	98	98	98	98	05	10	15	20	25	29	33	37	41	44
54	78	89	94	96	97	98	98	98	98	04	08	12	17	21	24	28	32	35	38
53	77	88	94	96	97	98	98	98	98	03	06	10	13	16	20	23	26	29	32
52	76	88	93	96	97	97	98	98	98	02	04	07	10	12	15	17	20	22	24
51	75	87	93	95	97	97	98	98	98	01	02	04	06	08	09	11	13	15	16
50	74	86	92	95	97	97	98	98	98	00	00	01	02	03	04	05	06	07	08
49	73	86	92	95	96	97	98	98	98										

T A B L E   1 C

Odds / Attempt	Amount Of Attempts																		
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
17	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
16	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
15	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
14	17	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
13	16	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
12	15	16	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
11	13	15	16	17	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
10	12	14	15	16	16	17	18	18	18	18	18	18	18	18	18	18	18	18	18
9	11	12	13	14	15	15	16	17	17	17	18	18	18	18	18	18	18	18	18
8	10	11	12	12	13	14	14	15	15	15	16	16	17	17	17	17	18	18	18
7	8	9	10	11	11	12	12	13	13	14	14	14	15	15	15	15	16	16	16
6	7	8	9	9	10	10	11	11	11	12	12	12	12	13	13	13	13	13	14
5	6	7	7	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	11
4	5	5	6	6	6	6	7	7	7	7	8	8	8	8	8	8	8	8	9
3	3	4	4	4	4	4	5	5	5	5	5	5	5	5	6	6	6	6	6

The following table is used, when the Odds to accomplish a certain task are known, but you wish to know what the same Odds would be with having to make several rolls of dice. Just cross-index the original Odds of Success with the amount of successful rolls required to get the same chance of success/failure.

T A B L E   2 A

Original Odds	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
98	98	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99
97	98	98	98	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99
96	97	98	98	98	98	99	99	99	99	99	99	99	99	99	99	99	99	99	99
95	97	98	98	98	98	98	98	99	99	99	99	99	99	99	99	99	99	99	99
94	96	97	98	98	98	98	98	98	98	99	99	99	99	99	99	99	99	99	99
93	96	97	97	98	98	98	98	98	98	98	98	99	99	99	99	99	99	99	99
92	95	97	97	98	98	98	98	98	98	98	98	98	98	99	99	99	99	99	99
91	95	96	97	97	98	98	98	98	98	98	98	98	98	98	98	99	99	99	99
90	94	96	97	97	97	98	98	98	98	98	98	98	98	98	98	98	98	99	99
89	94	96	96	97	97	98	98	98	98	98	98	98	98	98	98	98	98	98	98
88	93	95	96	97	97	97	98	98	98	98	98	98	98	98	98	98	98	98	98
87	93	95	96	96	97	97	97	98	98	98	98	98	98	98	98	98	98	98	98
86	92	94	96	96	97	97	97	97	98	98	98	98	98	98	98	98	98	98	98
85	92	94	95	96	97	97	97	97	98	98	98	98	98	98	98	98	98	98	98
84	91	94	95	96	96	97	97	97	97	98	98	98	98	98	98	98	98	98	98
83	91	93	95	96	96	97	97	97	97	97	98	98	98	98	98	98	98	98	98
82	90	93	94	95	96	96	97	97	97	97	97	98	98	98	98	98	98	98	98
81	90	93	94	95	96	96	97	97	97	97	97	97	98	98	98	98	98	98	98
80	89	92	94	95	96	96	96	97	97	97	97	97	98	98	98	98	98	98	98
79	88	92	94	95	95	96	96	97	97	97	97	97	97	98	98	98	98	98	98
78	88	91	93	94	95	96	96	96	97	97	97	97	97	97	98	98	98	98	98
77	87	91	93	94	95	96	96	96	97	97	97	97	97	97	97	98	98	98	98
76	87	91	93	94	95	95	96	96	96	97	97	97	97	97	97	97	98	98	98
75	86	90	92	94	95	95	96	96	96	97	97	97	97	97	97	97	97	98	98
74	86	90	92	93	94	95	95	96	96	96	97	97	97	97	97	97	97	97	98
73	85	89	92	93	94	95	95	96	96	96	97	97	97	97	97	97	97	97	98
72	84	89	91	93	94	95	95	96	96	96	96	97	97	97	97	97	97	97	97
71	84	89	91	93	94	94	95	95	96	96	96	97	97	97	97	97	97	97	97
70	83	88	91	92	93	94	95	95	96	96	96	96	97	97	97	97	97	97	97
69	83	88	90	92	93	94	95	95	95	96	96	96	96	97	97	97	97	97	97
68	82	87	90	92	93	94	94	95	95	96	96	96	96	97	97	97	97	97	97
67	81	87	90	92	93	94	94	95	95	96	96	96	96	96	97	97	97	97	97
66	81	87	89	91	93	93	94	95	95	95	96	96	96	96	97	97	97	97	97
65	80	86	89	91	92	93	94	94	95	95	96	96	96	96	96	97	97	97	97
64	80	86	89	91	92	93	94	94	95	95	95	96	96	96	96	96	97	97	97
63	79	85	88	90	92	93	94	94	95	95	95	96	96	96	96	96	97	97	97
62	78	85	88	90	92	93	93	94	94	95	95	96	96	96	96	96	96	97	97
61	78	84	88	90	91	92	93	94	94	95	95	95	96	96	96	96	96	97	97
60	77	84	87	90	91	92	93	94	94	95	95	95	96	96	96	96	96	96	97
59	76	83	87	89	91	92	93	93	94	94	95	95	95	96	96	96	96	96	96
58	76	83	87	89	91	92	93	93	94	94	95	95	95	96	96	96	96	96	96
57	75	82	86	89	90	92	92	93	94	94	95	95	95	95	96	96	96	96	96
56	74	82	86	88	90	91	92	93	94	94	94	95	95	95	96	96	96	96	96
55	74	81	86	88	90	91	92	93	93	94	94	95	95	95	95	96	96	96	96
54	73	81	85	88	90	91	92	93	93	94	94	95	95	95	95	96	96	96	96
53	72	80	85	87	89	91	92	92	93	94	94	94	95	95	95	95	96	96	96
52	72	80	84	87	89	90	91	92	93	93	94	94	95	95	95	95	96	96	96
51	71	79	84	87	89	90	91	92	93	93	94	94	94	95	95	95	95	96	96
50	70	79	84	86	88	90	91	92	92	93	94	94	94	95	95	95	95	96	96
49	70	78	83	86	88	90	91	92	92	93	93	94	94	94	95	95	95	95	96

T A B L E 2 A

Original Odds	Number of Successess Required																		
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
48	69	78	83	86	88	89	90	91	92	93	93	94	94	94	95	95	95	95	95
47	68	77	82	85	87	89	90	91	92	93	93	94	94	94	95	95	95	95	95
46	68	77	82	85	87	89	90	91	92	92	93	93	94	94	94	95	95	95	95
45	67	76	81	85	87	88	90	91	92	92	93	93	94	94	94	95	95	95	95
44	66	76	81	84	87	88	90	91	91	92	93	93	93	94	94	94	95	95	95
43	65	75	80	84	86	88	89	90	91	92	92	93	93	94	94	94	95	95	95
42	65	74	80	83	86	88	89	90	91	92	92	93	93	94	94	94	94	95	95
41	64	74	80	83	86	87	89	90	91	91	92	93	93	93	94	94	94	95	95
40	63	73	79	83	85	87	88	90	90	91	92	92	93	93	94	94	94	94	95
39	62	73	79	82	85	87	88	89	90	91	92	92	93	93	93	94	94	94	95
38	61	72	78	82	84	86	88	89	90	91	91	92	92	93	93	94	94	94	94
37	61	71	78	81	84	86	88	89	90	91	91	92	92	93	93	93	94	94	94
36	60	71	77	81	84	86	87	89	90	90	91	92	92	93	93	93	94	94	94
35	59	70	76	81	83	85	87	88	89	90	91	91	92	92	93	93	93	94	94
34	58	69	76	80	83	85	87	88	89	90	91	91	92	92	93	93	93	94	94
33	57	69	75	80	83	85	86	88	89	90	90	91	92	92	92	93	93	93	94
32	56	68	75	79	82	84	86	87	89	89	90	91	91	92	92	93	93	93	94
31	56	67	74	79	82	84	86	87	88	89	90	91	91	92	92	93	93	93	93
30	55	67	74	78	81	84	85	87	88	89	90	90	91	91	92	92	93	93	93
29	54	66	73	78	81	83	85	86	88	89	89	90	91	91	92	92	93	93	93
28	53	65	72	77	80	83	85	86	87	88	89	90	91	91	92	92	92	93	93
27	52	64	72	77	80	82	84	86	87	88	89	90	90	91	91	92	92	93	93
26	51	64	71	76	79	82	84	85	87	88	89	89	90	91	91	92	92	92	93
25	50	63	70	75	79	81	84	85	86	87	88	89	90	90	91	91	92	92	92
24	49	62	70	75	78	81	83	85	86	87	88	89	90	90	91	91	92	92	92
23	48	61	69	74	78	81	83	84	86	87	88	89	89	90	90	91	91	92	92
22	47	60	68	74	77	80	82	84	85	86	87	88	89	90	90	91	91	92	92
21	46	59	67	73	77	80	82	84	85	86	87	88	89	89	90	90	91	91	92
20	45	58	67	72	76	79	81	83	85	86	87	88	88	89	90	90	91	91	91
19	44	57	66	71	75	78	81	83	84	85	86	87	88	89	89	90	90	91	91
18	43	56	65	71	75	78	80	82	84	85	86	87	88	89	89	90	90	91	91
17	41	55	64	70	74	77	80	82	83	85	86	87	87	88	89	89	90	90	91
16	40	54	63	69	73	77	79	81	83	84	85	86	87	88	89	89	90	90	91
15	39	53	62	68	73	76	79	81	82	84	85	86	87	87	88	89	89	90	90
14	38	52	61	67	72	75	78	80	82	83	84	85	86	87	88	88	89	89	90
13	36	51	60	66	71	75	77	79	81	83	84	85	86	87	87	88	89	89	90
12	35	50	59	65	70	74	76	79	81	82	83	84	85	86	87	88	88	89	89
11	34	48	58	64	69	73	76	78	80	81	83	84	85	86	87	87	88	88	89
10	32	47	57	63	68	72	75	77	79	81	82	83	84	85	86	87	87	88	89
09	31	45	55	62	67	71	74	76	78	80	82	83	84	85	86	86	87	88	88
08	29	44	54	61	66	70	73	76	78	79	81	82	83	84	85	86	86	87	88
07	27	42	52	59	65	69	72	75	77	78	80	81	82	84	84	85	86	87	87
06	25	40	50	58	63	67	71	73	76	78	79	81	82	83	84	85	85	86	87
05	23	38	48	56	62	66	69	72	74	76	78	80	81	82	83	84	85	85	86
04	21	36	46	54	60	64	68	71	73	75	77	78	80	81	82	83	84	84	85
03	19	33	44	52	57	62	66	69	71	74	75	77	78	80	81	82	83	83	84
02	16	30	41	49	55	60	64	67	69	72	74	75	77	78	79	80	81	82	83
01	13	26	37	45	51	56	60	64	67	69	71	73	75	76	77	78	79	80	81
00	09	21	31	39	45	51	55	59	62	65	67	69	71	73	74	75	76	77	78

T A B L E   2 B

Original Odds	Number of Successess Required									Original Odds	Number of Successess Required								
	2	3	4	5	6	7	8	9	10		2	3	4	5	6	7	8	9	10
98	98	99	99	99	99	99	99	99	99	48	69	78	83	86	88	89	90	91	92
97	98	98	98	99	99	99	99	99	99	47	68	77	82	85	87	89	90	91	92
96	97	98	98	98	98	99	99	99	99	46	68	77	82	85	87	89	90	91	92
95	97	98	98	98	98	98	98	99	99	45	67	76	81	85	87	88	90	91	92
94	96	97	98	98	98	98	98	98	98	44	66	76	81	84	87	88	90	91	91
93	96	97	97	98	98	98	98	98	98	43	65	75	80	84	86	88	89	90	91
92	95	97	97	98	98	98	98	98	98	42	65	74	80	83	86	88	89	90	91
91	95	96	97	97	98	98	98	98	98	41	64	74	80	83	86	87	89	90	91
90	94	96	97	97	97	98	98	98	98	40	63	73	79	83	85	87	88	90	90
89	94	96	96	97	97	98	98	98	98	39	62	73	79	82	85	87	88	89	90
88	93	95	96	97	97	97	98	98	98	38	61	72	78	82	84	86	88	89	90
87	93	95	96	96	97	97	97	98	98	37	61	71	78	81	84	86	88	89	90
86	92	94	96	96	97	97	97	97	98	36	60	71	77	81	84	86	87	89	90
85	92	94	95	96	97	97	97	97	98	35	59	70	76	81	83	85	87	88	89
84	91	94	95	96	96	97	97	97	97	34	58	69	76	80	83	85	87	88	89
83	91	93	95	96	96	97	97	97	97	33	57	69	75	80	83	85	86	88	89
82	90	93	94	95	96	96	97	97	97	32	56	68	75	79	82	84	86	87	89
81	90	93	94	95	96	96	97	97	97	31	56	67	74	79	82	84	86	87	88
80	89	92	94	95	96	96	96	97	97	30	55	67	74	78	81	84	85	87	88
79	88	92	94	95	95	96	96	97	97	29	54	66	73	78	81	83	85	86	88
78	88	91	93	94	95	96	96	96	97	28	53	65	72	77	80	83	85	86	87
77	87	91	93	94	95	96	96	96	97	27	52	64	72	77	80	82	84	86	87
76	87	91	93	94	95	95	96	96	96	26	51	64	71	76	79	82	84	85	87
75	86	90	92	94	95	95	96	96	96	25	50	63	70	75	79	81	84	85	86
74	86	90	92	93	94	95	95	96	96	24	49	62	70	75	78	81	83	85	86
73	85	89	92	93	94	95	95	96	96	23	48	61	69	74	78	81	83	84	86
72	84	89	91	93	94	95	95	96	96	22	47	60	68	74	77	80	82	84	85
71	84	89	91	93	94	94	95	95	96	21	46	59	67	73	77	80	82	84	85
70	83	88	91	92	93	94	95	95	96	20	45	58	67	72	76	79	81	83	85
69	83	88	90	92	93	94	95	95	95	19	44	57	66	71	75	78	81	83	84
68	82	87	90	92	93	94	94	95	95	18	43	56	65	71	75	78	80	82	84
67	81	87	90	92	93	94	94	95	95	17	41	55	64	70	74	77	80	82	83
66	81	87	89	91	93	93	94	95	95	16	40	54	63	69	73	77	79	81	83
65	80	86	89	91	92	93	94	94	95	15	39	53	62	68	73	76	79	81	82
64	80	86	89	91	92	93	94	94	95	14	38	52	61	67	72	75	78	80	82
63	79	85	88	90	92	93	94	94	95	13	36	51	60	66	71	75	77	79	81
62	78	85	88	90	92	93	93	94	94	12	35	50	59	65	70	74	76	79	81
61	78	84	88	90	91	92	93	94	94	11	34	48	58	64	69	73	76	78	80
60	77	84	87	90	91	92	93	94	94	10	32	47	57	63	68	72	75	77	79
59	76	83	87	89	91	92	93	93	94	09	31	45	55	62	67	71	74	76	78
58	76	83	87	89	91	92	93	93	94	08	29	44	54	61	66	70	73	76	78
57	75	82	86	89	90	92	92	93	94	07	27	42	52	59	65	69	72	75	77
56	74	82	86	88	90	91	92	93	94	06	25	40	50	58	63	67	71	73	76
55	74	81	86	88	90	91	92	93	93	05	23	38	48	56	62	66	69	72	74
54	73	81	85	88	90	91	92	93	93	04	21	36	46	54	60	64	68	71	73
53	72	80	85	87	89	91	92	92	93	03	19	33	44	52	57	62	66	69	71
52	72	80	84	87	89	90	91	92	93	02	16	30	41	49	55	60	64	67	69
51	71	79	84	87	89	90	91	92	93	01	13	26	37	45	51	56	60	64	67
50	70	79	84	86	88	90	91	92	92	00	09	21	31	39	45	51	55	59	62
49	70	78	83	86	88	90	91	92	92										

T A B L E   2 C

Original 00-99	3(6)	2	3	4	5	6	7	8	9	10	Original 00-99	3(6)	2	3	4	5	6	7	8	9	10
		\<Number of Successess Required\>											\<Number of Successess Required\>								
98	17	17	18	18	18	18	18	18	18	18	48		12	13	13	14	14	14	14	14	15
97	16	17	17	17	18	18	18	18	18	18	47		12	12	13	13	14	14	14	14	15
96		16	17	17	17	17	18	18	18	18	46		12	12	13	13	14	14	14	14	15
95		16	17	17	17	17	17	17	18	18	45		11	12	13	13	14	14	14	14	15
94	15	16	16	17	17	17	17	17	17	17	44		11	12	13	13	14	14	14	14	14
93		16	16	16	17	17	17	17	17	17	43		11	12	13	13	14	14	14	14	14
92		15	16	16	17	17	17	17	17	17	42		11	12	13	13	14	14	14	14	14
91		15	16	16	16	17	17	17	17	17	41		11	12	13	13	14	14	14	14	14
90		15	16	16	16	16	17	17	17	17	40		11	12	13	13	13	14	14	14	14
89	14	15	16	16	16	16	17	17	17	17	39		11	12	13	13	13	14	14	14	14
88		15	15	16	16	16	16	17	17	17	38		11	12	13	13	13	14	14	14	14
87		15	15	16	16	16	16	16	17	17	37	9	11	12	13	13	13	14	14	14	14
86		15	15	16	16	16	16	16	16	17	36		11	12	12	13	13	14	14	14	14
85		15	15	15	16	16	16	16	16	17	35		11	12	12	13	13	13	14	14	14
84		14	15	15	16	16	16	16	16	16	34		11	12	12	13	13	13	14	14	14
83		14	15	15	16	16	16	16	16	16	33		11	12	12	13	13	13	14	14	14
82	13	14	15	15	15	16	16	16	16	16	32		11	12	12	13	13	13	14	14	14
81		14	15	15	15	16	16	16	16	16	31		11	11	12	13	13	13	14	14	14
80		14	15	15	15	16	16	16	16	16	30		10	11	12	13	13	13	13	14	14
79		14	15	15	15	15	16	16	16	16	29		10	11	12	13	13	13	13	14	14
78		14	14	15	15	15	16	16	16	16	28		10	11	12	12	13	13	13	14	14
77		14	14	15	15	15	16	16	16	16	27		10	11	12	12	13	13	13	14	14
76		14	14	15	15	15	15	16	16	16	26		10	11	12	12	13	13	13	13	14
75		14	14	15	15	15	15	16	16	16	25	8	10	11	12	12	13	13	13	13	14
74		14	14	15	15	15	15	15	16	16	24		10	11	12	12	13	13	13	13	14
73	12	13	14	15	15	15	15	15	16	16	23		10	11	12	12	13	13	13	13	14
72		13	14	14	15	15	15	15	16	16	22		10	11	12	12	12	13	13	13	13
71		13	14	14	15	15	15	15	15	16	21		10	11	11	12	12	13	13	13	13
70		13	14	14	15	15	15	15	15	16	20		10	11	11	12	12	13	13	13	13
69		13	14	14	15	15	15	15	15	15	19		10	11	11	12	12	13	13	13	13
68		13	14	14	15	15	15	15	15	15	18		9	11	11	12	12	13	13	13	13
67		13	14	14	15	15	15	15	15	15	17		9	10	11	12	12	12	13	13	13
66		13	14	14	14	15	15	15	15	15	16	7	9	10	11	12	12	12	13	13	13
65		13	14	14	14	15	15	15	15	15	15		9	10	11	12	12	12	13	13	13
64		13	14	14	14	15	15	15	15	15	14		9	10	11	11	12	12	13	13	13
63		13	13	14	14	15	15	15	15	15	13		9	10	11	11	12	12	12	13	13
62		13	13	14	14	15	15	15	15	15	12		9	10	11	11	12	12	12	13	13
61	11	13	13	14	14	14	15	15	15	15	11		9	10	11	11	12	12	12	13	13
60		12	13	14	14	14	15	15	15	15	10		9	10	11	11	12	12	12	12	13
59		12	13	14	14	14	15	15	15	15	09	6	8	10	10	11	11	12	12	12	13
58		12	13	14	14	14	15	15	15	15	08		8	10	10	11	11	12	12	12	13
57		12	13	14	14	14	15	15	15	15	07		8	9	10	11	11	12	12	12	12
56		12	13	14	14	14	14	15	15	15	06		8	9	10	11	11	11	12	12	12
55		12	13	14	14	14	14	15	15	15	05		8	9	10	11	11	11	12	12	12
54		12	13	13	14	14	14	15	15	15	04	5	8	9	10	10	11	11	12	12	12
53		12	13	13	14	14	14	15	15	15	03		7	9	10	10	11	11	11	12	12
52		12	13	13	14	14	14	14	15	15	02		7	8	9	10	10	11	11	11	12
51		12	13	13	14	14	14	14	15	15	01	4	7	8	9	10	10	11	11	11	11
50		12	13	13	14	14	14	14	15	15	00	3	6	8	8	9	10	10	10	11	11
49	10	12	13	13	14	14	14	14	15	15											

T A B L E   2 D

Original Odds	Number of Successess Required																		
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
17	17	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
16	17	17	17	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
15	16	16	17	17	17	17	17	17	17	18	18	18	18	18	18	18	18	18	18
14	15	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17	17	17
13	14	15	15	15	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17
12	13	14	15	15	15	15	15	16	16	16	16	16	16	16	16	16	16	16	17
11	13	13	14	14	14	15	15	15	15	15	15	15	16	16	16	16	16	16	16
10	12	13	13	14	14	14	14	15	15	15	15	15	15	15	15	15	15	15	16
9	11	11	12	12	12	13	13	13	13	13	13	14	14	14	14	14	14	14	14
8	10	11	11	11	12	12	12	12	13	13	13	13	13	13	13	13	14	14	14
7	9	10	10	11	11	11	12	12	12	12	12	13	13	13	13	13	13	13	13
6	8	10	10	11	11	12	12	12	13	13	13	13	13	13	14	14	14	14	14
5	8	9	10	10	11	11	12	12	12	12	12	13	13	13	13	13	13	13	13
4	7	8	9	10	10	11	11	11	11	12	12	12	12	12	12	13	13	13	13
3	6	7	8	9	9	10	10	10	11	11	11	11	11	12	12	12	12	12	12

T A B L E   3 A

Effective Accuracy Level

Shots / Groups	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	-1	-2
1	99	98	96	94	90	86	80	74	67	60	53	46	39	33	27	22	18	15	12	09	07	06	05	04	03	02	02	01	01	01	00
1	99	99	99	99	98	97	95	93	89	84	78	71	63	55	47	40	33	28	23	18	14	12	10	09	07	05	05	03	03	03	01
2	99	97	93	89	82	75	65	55	45	36	28	21	15	11	07	04	03	02	01	00	00										
1	99	99	99	99	99	99	98	97	96	93	89	84	77	70	62	53	46	40	33	26	21	19	16	13	11	08	08	05	05	05	02
2	99	99	99	98	97	94	90	83	75	65	55	45	34	26	18	12	09	06	04	02	01	00	00	00	00						
3	99	96	90	85	74	65	52	41	30	22	15	09	05	03	01	00	00														
1	99	99	99	99	99	99	99	99	98	97	95	91	86	80	72	64	56	49	42	33	27	24	21	18	14	10	10	07	07	07	03
2	99	99	99	99	99	98	97	94	89	82	73	63	51	41	30	22	16	11	08	04	02	02	01	00	00	00	00				
3	99	99	98	98	95	91	82	73	61	48	36	26	17	11	06	03	01	00	00												
4	99	95	88	80	68	56	42	31	20	13	08	04	02	00	00																
1	99	99	99	99	99	99	99	99	99	98	97	95	91	86	80	72	64	57	49	40	33	29	26	22	17	13	13	09	09	09	04
2	99	99	99	99	99	99	98	97	95	91	85	76	65	54	42	32	23	17	12	07	04	03	02	01	01	00	00				
3	99	99	99	99	98	97	94	89	80	69	56	43	31	21	13	07	04	02	01	00	00										
4	99	99	98	97	92	86	75	62	48	34	23	14	08	04	01	00	00														
5	99	94	85	76	61	49	34	23	14	08	04	01	00	00																	
1	99	99	99	99	99	99	99	99	99	99	98	97	94	91	85	78	71	64	56	46	38	34	30	25	21	16	16	10	10	10	05
2	99	99	99	99	99	99	99	99	98	95	91	85	76	65	53	41	31	24	17	10	07	05	04	02	01	00	00	00	00	00	
3	99	99	99	99	99	99	98	95	90	82	72	59	45	32	21	13	08	05	02	01	00	00									
4	99	99	99	99	98	96	90	82	70	56	41	28	17	10	05	02	00	00													
5	99	99	98	96	89	81	67	52	37	24	14	07	03	01	00																
6	99	93	82	73	56	42	27	17	09	04	02	00																			

T A B L E 3 B

S H O T S / G R O U P S

EAL	1	2		3			4				5					6					
	1	1	2	1	2	3	1	2	3	4	1	2	3	4	5	1	2	3	4	5	6
28	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99
27	98	99	97	99	99	96	99	99	99	95	99	99	99	99	94	99	99	99	99	99	93
26	96	99	93	99	99	90	99	99	98	88	99	99	99	98	85	99	99	99	99	98	82
25	94	99	89	99	98	85	99	99	98	80	99	99	99	97	76	99	99	99	99	96	73
24	90	98	82	99	97	74	99	99	95	68	99	99	98	92	61	99	99	99	98	89	56
23	86	97	75	99	94	65	99	98	91	56	99	99	97	86	49	99	99	99	96	81	42
22	80	95	65	98	90	52	99	97	82	42	99	98	94	75	34	99	99	98	90	67	27
21	74	93	55	97	83	41	99	94	73	31	99	97	89	62	23	99	99	95	82	52	17
20	67	89	45	96	75	30	98	89	61	20	99	95	80	48	14	99	98	90	70	37	09
19	60	84	36	93	65	22	97	82	48	13	98	91	69	34	08	99	95	82	56	24	04
18	53	78	28	89	55	15	95	73	36	08	97	85	56	23	04	98	91	72	41	14	02
17	46	71	21	84	45	09	91	63	26	04	95	76	43	14	01	97	85	59	28	07	00
16	39	63	15	77	34	05	86	51	17	02	91	65	31	08	00	94	76	45	17	03	
15	33	55	11	70	26	03	80	41	11	00	86	54	21	04	00	91	65	32	10	01	
14	27	47	07	62	18	01	72	30	06	00	80	42	13	01		85	53	21	05	00	
13	22	40	04	53	12	00	64	22	03		72	32	07	00		78	41	13	02		
12	17	33	03	46	09	00	56	16	01		64	23	04	00		71	31	08	00		
11	15	28	02	40	06		49	11	00		57	17	02			64	24	05	00		
10	12	23	01	33	04		42	08	00		49	12	01			56	17	02			
9	09	18	00	26	02		33	04			40	07	00			46	10	01			
8	07	14	00	21	01		27	02			33	04	00			38	07	00			
7	06	12		19	00		24	02			29	03				34	05	00			
6	05	10		16	00		21	01			26	02				30	04				
5	04	09		13	00		18	00			22	01				25	02				
4	03	07		11	00		14	00			17	01				21	01				
3	02	05		08			10	00			13	00				16	00				
2	02	05		08			10	00			13	00				16	00				
1	01	03		05			07				09					10	00				
0	01	03		05			07				09					10	00				
-1	01	03		05			07				09					10	00				
-2	00	01		02			03				04					05					
	1	1	2	1	2	3	1	2	3	4	1	2	3	4	5	1	2	3	4	5	6
	1	2		3			4				5					6					

T A B L E 4

Attempts	Successes/Attempts	Odds of Success															
		18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3
	% Probability to Succeed Once	*100*	*99*	*98*	*95*	*90*	*83*	*74*	*62*	*50*	*38*	*26*	*17*	*10*	*5*	*2*	*0.5*
2	**1**	18	18	18	18	17	16	15	13	12	11	10	8	7	6	5	3
	2	18	16	15	14	13	12	10	9	8	7	5	4	3	3		
3	**1**	18	18	18	18	18	18	16	15	14	12	11	9	8	7	5	4
	2	18	18	18	17	16	14	13	12	10	9	7	6	4	3		
	3	18	16	15	13	12	11	9	8	6	5	4	3				
4	**1**	18	18	18	18	18	18	18	16	15	13	12	10	9	7	6	4
	2	18	18	18	18	18	16	15	13	12	10	8	7	5	4		
	3	18	18	18	17	15	13	12	10	8	7	5	4	3			
	4	18	15	14	13	11	10	8	7	5	4	3					
5	**1**	18	18	18	18	18	18	18	17	16	14	12	11	9	8	6	4
	2	18	18	18	18	18	18	16	15	13	11	9	7	6	4	3	
	3	18	18	18	18	17	15	14	12	10	8	6	5	3			
	4	18	18	18	16	14	13	11	9	7	5	4	3				
	5	18	15	14	12	11	9	8	6	4	3						
6	**1**	18	18	18	18	18	18	18	18	16	15	13	11	10	8	6	4
	2	18	18	18	18	18	18	17	16	14	12	10	8	6	4	3	
	3	18	18	18	18	18	17	15	13	11	9	7	5	4			
	4	18	18	18	18	16	15	13	11	9	7	5	3				
	5	18	18	17	16	14	12	10	8	6	4	3					
	6	18	15	14	12	10	9	7	5	4	3						